SECTION VI A MULTICOMPONENT MODEL OF PREPARING PROVIDERS IN COMMUNITIES AFFECTED BY TERRORISM

Toward a Public Mental Health Approach for Survivors of Terrorism

Matthew J. Friedman

SUMMARY. Although most people exposed to bioterrorism or mass casualties will be extremely distressed during the immediate aftermath, only a minority (approximately 30%) will develop clinically significant psychiatric disorders. From a public mental health perspective, the challenge is to provide both preventive programs for the entire population and early detection and intervention for those at greatest risk for PTSD or other post-traumatic psychiatric disorders. Both individual and soci-

Address correspondence to: Matthew J. Friedman, MD, PhD, National Center for PTSD (116D), VA Medical & Regional Office Center, 215 North Main Street, White River Junction, VT 05009 USA (E-mail: Matthew.Friedman@Dartmouth.edu).

[Haworth co-indexing entry note]: "Toward a Public Mental Health Approach for Survivors of Terrorism." Friedman, Matthew J. Co-published simultaneously in *Journal of Aggression, Maltreatment & Trauma* (The Haworth Maltreatment & Trauma Press, an imprint of The Haworth Press, Inc.) Vol. 10, No. 1/2, 2005; and: *The Trauma of Terrorism: Sharing Knowledge and Shared Care, An International Handbook* (ed: Yael Danieli, Danny Brom, and Joe Sills) The Haworth Maltreatment & Trauma Press, an imprint of The Haworth Press, Inc., 2005. Single or multiple copies of this article are available for a fee from The Haworth Document Delivery Service [1-800-HAWORTH, 9:00 a.m. - 5:00 p.m. (EST). E-mail address: docdelivery@haworthpress.com].

http://www.haworthpress.com/web/JAMT

Digital Object Identifier: 10.1300/J146v10n01_11

etal preventive and early intervention approaches are reviewed. Utilization of the media, especially television, is presented as an example of one of many potential community/societal public mental health approaches.

KEYWORDS. PTSD, public mental health, prevention, intervention, media, disaster response

Progress in any field is a double-edged sword. Each time we wrest a new bit of information from our enigmatic Mother Nature, we achieve a much clearer perspective on other secrets she continues to keep to herself. Indeed, the more we think we know about certain things, the more certain we become about our ignorance in other matters.

Recent events have forced me to acknowledge the limited applicability of traditional clinical approaches for most people exposed to terrorism, mass casualties, and large-scale disasters. Although I remain a firm believer in evidence-based treatments for individuals with post-traumatic psychiatric disorders (Foa, Keane, & Friedman, 2000; Wilson, Friedman, & Lindy, 2001) that meet DSM-IV (American Psychiatric Association, 2000) diagnostic criteria, I now recognize that they represent a small minority of the men, women, and children who survive such disasters.

POST-TRAUMATIC REACTIONS: A POPULATION PERSPECTIVE

From a public health perspective, most people exposed to traumatic events do not develop depression, PTSD, alcoholism, or some other DSM-IV psychiatric disorder. Indeed, a recent review of 160 studies on disaster victims suggests that two-thirds will not develop a clinically significant chronic psychiatric disorder (Norris, Friedman, & Watson, 2002; Norris, Friedman, Watson, Byrne, Diaz, & Kaniasty, 2002). In a recent study of 2,509 Mexican adult trauma survivors, Norris and associates (Norris, Murphy, Baker, & Perilla, 2003) found that whereas 95% of exposed individuals experienced some degree of post-traumatic psychological distress, only 29% experienced acute reactions deemed serious from a clinical perspective and only 30% experienced chronic symptoms lasting more than a year.

When considering the impact of terrorism, the prevalence of psychological distress appears to be considerably higher than for natural disasters. A random-digit dialing national survey of Americans completed within three to five days of the September 11th terrorist attacks indicated that 44% of respondents reported one or more substantial symptoms of severe distress, while 90% reported at least moderate distress (Schuster et al., 2001). Similar findings were reported from a web-based survey of a national probability sample conducted two months after the World Trade Center attacks, which indicated that 17% of the U.S. population outside of New York reported symptoms of September 11-related post-traumatic stress (Silver, Holman, McIntosh, Poulin, & Gil-Rivas, 2002). Finally, it is noteworthy that rates of post-traumatic distress detected among New Yorkers within weeks of the World Trade Center attacks that were reported in both of these studies are considerably higher than the prevalence of PTSD and depression, 7.5% and 9.7%, respectively (Galea et al., 2002).

These examples show that terrorism is not only an effective means of waging psychological warfare but that its impact extends far beyond the immediate vicinity of such attacks. In addition, they indicate that most people with significant traumatic distress do not develop PTSD or some other DSM-IV diagnosis. Elsewhere we have suggested that the major weapon wielded by terrorists is fear (Friedman, Hamblen, Foa & Charney, in press). Fear is highly toxic; it is very contagious and immediately transmissible to large numbers of the population who were never in any physical danger from a specific terrorist attack. Indeed, according to Solomon (1995), there is at least one documented example that fear can be lethal. Eleven Israelis who were never in danger of SCUD missile attacks during the 1991 Gulf War died because of fear after the air raid alerts were sounded: 7 by suffocation from faulty use of gas masks and 4 from heart attacks.

PUBLIC MENTAL HEALTH CHALLENGES

The goals of public mental health are: (a) protection of the general population through preventive measures; (b) early detection of and intervention for populations at risk; and (c) reducing symptom severity and functional impairment among people with chronic psychiatric disabilities. The focus in this article is on the first two objectives, since the third has received attention elsewhere (Foa et al., 2000; see also, Kinzie, this volume; Waizer, Dorin, Stoller, & Laird, this volume). Unfortunately, we know very little about preventive or early intervention measures that might help formulate public mental health policy concerning the threat and impact of terrorism.

Prevention

The best way to protect against post-traumatic distress would be to prevent all future attacks perpetrated by terrorists. It would be the psychological equivalent of draining the swamps to wipe out yellow fever (Friedman, 1981). Given the unlikelihood of successfully implementing such a strategy, the next best approach would be to promote resilience at the societal, community, family, and individual levels. At the societal level, this would mean developing laws, policies, and practices to ensure optimal preparation for and public responses to terrorist attacks.

At the individual level, this might mean promoting psychological and psychobiological resilience through provision of psychological "vaccines," when indicated, to the population at large. Epidemiological data indicate that more than half of adult Americans will be exposed to at least one traumatic event during their lifetimes (Kessler, Sonnega, Bromet, Hughes, & Nelson, 1995). Many more individuals will be thus exposed from nations in conflict, such as Algeria, Palestine, and Bosnia (de Jong et al., 2001). Therefore, the psychological and physical consequences of traumatic exposure constitute a major public health challenge throughout the world (Green et al., 2003; Schnurr & Green, 2003). From this perspective, it is very important to search for effective psychological vaccines and to consider providing them to children and adults as part of an overall public health strategy. Perhaps the most effective vaccine for most children and adults would be a proactive psychoeducational approach provided in school, workplace, and community settings.

Since epidemiologic research has shown that people differ in their vulnerability to (or resilience against) post-traumatic distress (Norris, Friedman, & Watson, 2002; Norris, Friedman, Watson, Byrne et al., 2002), another preventive public mental health strategy might be to identify individuals at greatest risk for such severe, chronic, and debilitating post-traumatic reactions, and provide prophylactic interventions in addition to the vaccines provided to the general populace. For example, a more intensive approach for populations at risk might include stress inoculation training or psychobiological strategies for prevention of post-traumatic distress or for promotion of resilience outlined elsewhere (Friedman, 2002).

Early Detection and Intervention

As discussed previously, most people exposed to a terrorist attack will exhibit psychological distress. For some, this will be a transient reaction that may be briefly incapacitating, at most. For others, this may be the start of a severe, chronic, and potentially incapacitating psychiatric disorder. The public health

problem (Friedman, Foa, & Charney, 2003; Friedman et al., in press) is that we cannot distinguish vulnerable from resilient individuals during the immediate aftermath of a terrorist attack, mass casualty, or natural disaster. A number of prognostic categories have been proposed as early indicators of future chronicity, such as functional impairment (Norris et al., 2003), elevated heart rate (Shalev, Peri, Canetti, & Schreiber, 1996), and negative cognitions (Ehlers & Clark, 2003). Unfortunately, none of these have been tested sufficiently. In addition, the new DSM-IV diagnosis, Acute Stress Disorder, has had only limited usefulness as a screening criterion for the general population since the majority of people who develop PTSD will not have met ASD criteria beforehand (Bryant, 2003). This is obviously a major concern for public mental health planners who, understandably, do not want to pathologize normal and transient post-traumatic distress and who do not want to use scarce and expensive clinical resources for individuals who will recover spontaneously or with minimal assistance.

Early detection is also important because different interventions may be indicated for people who are situated at different points along the vulnerability to resilience continuum. For example, very vulnerable survivors might be most susceptible to the potentially deleterious effects of psychological debriefing offered shortly after a terrorist attack (Rose & Bisson, 1998). They might do better if treatment is delayed for a minimum of several weeks, after which they should be offered a brief course of cognitive behavioral treatment (Bryant, 2003; Ehlers & Clark, 2003). In contrast, the most resilient survivors might benefit most from family/peer group support or from psychoeducational information provided through the media rather than from any formal intervention during the acute post-traumatic aftermath.

To summarize, there appear to be many differences among individuals with regard to post-traumatic vulnerability vs. resilience, to the likelihood of transient vs. chronic post-traumatic reactions, and to the best choice of pre-traumatic preparation and post-traumatic interventions.

Conceptual Approach: Inverted Psychosocial Pyramid

As indicated by the previous examples, terrorism is psychological warfare against society as a whole. Therefore, it must be approached from a societal rather than a traditional clinical perspective. A useful conceptual mode within which to frame a public mental health perspective is the inverted psychosocial pyramid (de Jong, 2002; Fairbank, Friedman, de Jong, Green, & Solomon, 2003; Marsella, 1998), which defines four levels of intervention (see Figure 1). At the top, *societal* interventions are preventive cost-effective interventions designed for the whole population. With respect to terrorism, these include international and national laws, public policy, and public institutions supporting basic human needs, safety,

security, and education. Reestablishing safety and security after a mass casualty can be considered a societal mental health intervention. An effective national health and mental health care system is also a societal intervention, as is a national emergency medical disaster system equipped to provide needed services. As discussed subsequently, societal interventions might also include policy and practice concerning the media and risk communication.

Community interventions also target the general population rather than individuals at risk. They foster individual resilience and rejuvenate communities following catastrophic events by restoring support networks, re-establishing communication, providing public education, empowering communities so that individuals can help themselves, and providing training to indigenous survivors so that they can participate more effectively in the post-traumatic recovery (Fairbank et al., 2003). Obvious community sites for such interventions include schools, religious settings, labor unions, employee assistance programs, and ethnic communities.

Family interventions rely on natural helping networks and focus primarily on informal support systems of family, friends, peers, neighbors, and local community organizations. Since the whole family is affected even if only one of its members has been severely traumatized, and the legacy of traumatic exposure is often transgenerational in nature, family interventions are extremely important (Danieli, 1998).

Individual interventions are most familiar to clinically trained professionals. They should be reserved for the most seriously impaired whose post-traumatic stress is clinically significant and functionally incapacitating (Foa et al., 2000; Wilson et al., 2001).

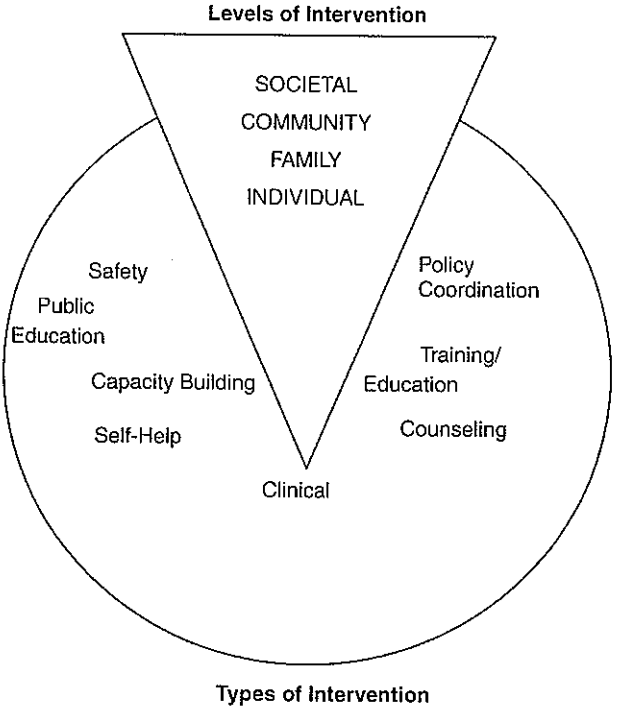
The inverted pyramid depicted in Figure 1 (Green et al., 2003) is essentially a public mental health model to promote wellness rather than a clinical model to treat illness. It is predicated on the following set of assumptions:

a. Most people exposed to terrorism will exhibit fear and a predictable array of post-traumatic symptoms. The geographic distribution of such psychological distress will far exceed the physical danger of such a terrorist attack, potentially affecting a community, city, or entire nation (as shown by the aforementioned post-9/11 epidemiological research findings).
b. Most people exposed to such attacks will recover from their initial post-impact distress, although such recovery may take weeks or months (for a thorough discussion of recovery from traumatic grief, see Pivar & Prigerson, and Malkinson, Rubin, & Witztum, this volume).
c. In the immediate aftermath of a terrorist attack, almost everyone will be very upset, and it will be difficult to distinguish those who will have transient post-traumatic reactions from those who will develop chronic, incapacitating psychiatric disorders.
d. A reasonable public health approach will be to prepare the population-at-large as much as possible before such attacks occur, to provide

effective risk communication (see U.S. Department of Health and Human Services, 2002) and education immediately afterward, and to conduct early detection and intervention for those most in need.

e. It is expected that societal and community interventions before and immediately after terrorist attacks will accelerate the recovery of resilient individuals but this assumption must be tested empirically.
f. Effective implementation of a wellness-promoting public mental health approach at the societal, community, and family levels should reduce the number of people seeking traditional clinical interventions for post-traumatic psychiatric disorders. Such an approach makes sense clinically and economically: clinically, to avoid needless treatment for people who will recover without formal assistance; and economically, to avoid the high costs of utilizing scarce professional resources.

FIGURE 1. Inverted Psychosocial Pyramid (*modified from Fairbank et al., 2003) illustrates a conceptual model within which to frame a public mental health strategy following mass casualties or disasters. Societal level strategy of interventions might involve public policy or education whereas individual level interventions include clinical treatment. *Trauma Interventions in War and Peace: Prevention, Practice, and Policy.* Green et al., 2003. Kluwer Academic/Plenum Publishers. Printed with permission.



An Example: Utilizing the Media for Societal/Community Interventions. A concrete example of a large-scale societal level intervention to help achieve the public health goals described above might enhance our understanding of the issues. Such an intervention must be available to the population at large, be relatively inexpensive, have the capacity to facilitate preparation for the impact of terrorism, have the potential to ameliorate widespread distress during the immediate aftermath of a terrorist attack, and be an effective tool for reaching vulnerable individuals with clinically significant post-traumatic reactions. Although there are many examples from which to choose (Green et al., 2003), I will focus on the media because they are very well situated to play a key role in this regard.

Experience in New York City following the September 11th attacks has shown the power of media exposure either to exacerbate or attenuate post-traumatic distress on a massive scale. Regarding adverse effects, two reports have documented a close response relationship between post-traumatic distress and exposure to televised material on the World Trade Center and Pentagon attacks (e.g., airplanes hitting the Twin Towers, human casualties, flames, smoke, falling debris, interviews with acutely bereaved individuals). In a survey conducted three to five days after September 11th, Schuster and associates (2001) observed that substantial post-traumatic distress was more likely among those who spent the most time watching televised coverage of these events. Similar findings were reported in a web-based nationally representative sample, which also found that the magnitude of PTSD symptom levels was associated with the number of hours of watching coverage of the September 11th events (Schlenger et al., 2002).

Research has produced similar findings with regard to television viewing of traumatic material by American children after the Oklahoma City bombing (Pfefferbaum et al., 2001; Pfefferbaum, Pfefferbaum, North, & Neas, 2002) and by Kuwaiti children exposed to military occupation during the Gulf War (Nader, Pynoos, Fairbanks, Al-Ajeel, & Al-Asfour, 1993). Interpretation of these findings is by no means obvious. On the one hand, they suggest that television viewing, itself, may be toxic due to its capacity to instigate or exacerbate post-traumatic distress. Indeed, there is evidence to suggest that repeated exposure to televised traumatic images might interfere with the normal recovery process during the immediate aftermath of a traumatic event (Ehlers & Clark, 2003). On the other hand, it may be that people who are already most distressed are those who watch the most television, possibly as a coping mechanism to understand the event better (Newman, Davis, & Kennedy, in press; Schlenger et al., 2002).

Whatever the reasons, the data clearly indicate that the most distressed people watch the most television. This is a golden opportunity for a societal/com-

munity level mental health intervention since we can be reasonably confident that we can gain access to the most vulnerable individuals through television. This is an opportunity to provide televised information about the nature of a post-traumatic event, and for public officials, celebrities, experts, parents, and others to appear on television to provide such information to the population at large. An additional possibility is for the media to help people regulate post-traumatic anxiety and arousal (see G. Ross's Guide, this volume). As days go by, information about abnormal reactions and where to get help might also be aired so that viewers can make accurate assessments of their own (or a loved one's) psychological state. In this way, vulnerable individuals might be self-identified as soon as possible and directed to appropriate professional assistance.

Another key role in which television (and other media) can participate is in risk communication. How information is communicated before, during, and after a catastrophe can have a major impact on the level of distress experienced by the general population. Although it is the responsibility of public officials to ease public concern and to provide guidance on how best to respond to a crisis, the media are in the best position to educate the public, provide accurate and timely information about the extent and likely danger from a terrorist attack, provide a forum for experts who can knowledgeably address public concerns, and check sources carefully before airing information that may heighten public anxiety.

There are many complex issues that need to be addressed before television (and other media) can be enlisted as a hard-wired component of a public mental health response. Journalists have a primary responsibility to report the news objectively and many would object strongly to modifying their coverage to meet a non-journalistic objective such as public mental health (Newman et al., in press). However, journalistic policy is not fixed and immutable. Differences in editorial policy on television coverage of the recent war in Iraq illustrate this point since there was a great divergence in the graphic death and destruction imagery shown on different stations. Therefore, an acceptable middle ground can be achieved between journalistic prerogatives to report the news objectively and media participation in a coordinated public mental health outreach initiative. Although these two roles are not mutually exclusive, a thoughtful dialogue must take place between media and public health officials before the parameters of these two roles can be defined better.

The recent experience of New York City's post-9/11 disaster mental health program, Project Liberty, shows how effective media-public health partnerships can benefit the general public after a major catastrophe. In her description of a broad scale public media campaign as a post-9/11 mental health outreach strategy, Naturale (in press) lists four objectives of such an initiative:

(a) branding a disaster response program to provide recognition of available services; (b) broadcasting the overall message that post-traumatic distress is a normal reaction; (c) promoting a sense of security for the community at large by announcing that mental health services are available to those in need; and (d) identifying and legitimizing outreach staff conducting face-to-face and door-to-door outreach services. Two additional objectives can be added to this list: (e) alleviating unnecessary public anxiety through thoughtful programming; and (f) helping guide public empowerment by identifying constructive courses of action.

Project Liberty developed a 30-second television commercial that aired within two weeks of the terrorist attacks and which directed the public to available mental health services. Equally impressive information about societal/community interventions implemented by Project Liberty concern radio announcements, printed brochures, utilization of a cost-free "800" phone number, and information provided through the internet. In addition, Project Liberty's community-directed interventions were tailored specifically for school children, the elderly, the workplace, and for many distinct ethnic communities. For purposes of this article, any one of these interventions could have been selected as examples of cost-effective, broad-based, societal/community public mental health interventions. The present focus on television should be understood as one of many possible concrete examples of a public mental health strategy designed to foster wellness, ameliorate psychological distress, accelerate normal recovery, facilitate identification of people who require clinical attention, and to help people find appropriate professional help when needed.

CONCLUSION

Focusing on a public mental health approach to terrorism, this article has discussed effective and efficient strategies of prevention, promoting resilience, and a post-traumatic intervention strategy that will reach the general public. Television has been explored as one of many potential vehicles through which such societal interventions might be implemented. This is new territory for traditional clinicians, but one that addresses the needs of the population-at-large rather than self-selected individuals in distress who seek conventional, office-based treatment. This approach emphasizes wellness rather than illness and is completely consistent with the general objectives of any public health program.

It is important to emphasize that I have only presented a conceptual framework, with no data. Clearly, that is the next challenge. We must test the hy-

potheses spawned by a public mental health approach with the same scientific rigor we have utilized to evaluate psychosocial and pharmacological treatments developed for people with DSM-IV psychiatric disorders. With respect to television, we must begin to carry out careful dismantling studies in order to understand which components of televised messages are toxic and which are salutary. We need to test systematically a wide variety of qualitative and quantitative aspects of televised presentations to determine which are most effective and what outcomes they may be expected to produce. We must also seek to discover how to translate the successful lessons of clinical practice into useful interventions for society as a whole.

REFERENCES

American Psychiatric Association. (2000). *Diagnostic and statistical manual of mental disorders* (4th ed., text revision). Washington, DC: Author.

Bryant, R. A. (2003). Early predictors of posttraumatic stress disorder. *Biological Psychiatry, 53*, 789-795.

Danieli, Y. (Ed.). (1998). *International handbook of multigenerational legacies of trauma*. New York: Plenum.

de Jong, J. T. V. M. (2002). Public mental health, traumatic stress and human rights violations in low-income countries: A culturally appropriate model in times of conflict, disaster and peace. In J. T. V. M. de Jong (Ed.), *Trauma, war and violence: Public mental health in sociocultural context* (pp. 1-91). New York: Kluwer/Plenum.

de Jong, J. T. V. M., Komproe, I. H., Van Ommeren, M., El Masri, M., Mesfin, A., Khaled, N. et al. (2001). Lifetime events and posttraumatic stress disorder in 4 postconflict settings. *Journal of the American Medical Association, 286*, 555-562.

Ehlers, A., & Clark, D. M. (2003). Early psychological interventions for adult survivors of trauma: A review. *Biological Psychiatry*, 53, 817-826.

Fairbank, J. A., Friedman, M. J., de Jong, J., Green, B. L., & Solomon, S. D. (2003). Intervention options for society, communities, families, and individuals. In B. L. Green, M. J. Friedman, J. de Jong, S. Solomon, T. Keane, J.A. Fairbank et al. (Eds.), *Trauma interventions in war and peace: Prevention. practice and policy* (pp. 57-72). Amsterdam: Kluwer Academic/Plenum.

Foa, E. B., Keane, T. M., & Friedman, M. J. (Eds.). (2000). *Effective treatments for post-traumatic stress disorder: Practice guidelines from the international society for traumatic stress studies*. New York: Guilford Press.

Friedman, M. J. (1981). Post-Vietnam syndrome: A delayed stress reaction. *Psychosomatics, 22*, 931-943.

Friedman, M. J. (2002). Future pharmacotherapy for post-traumatic stress disorder: Prevention and treatment. *Psychiatric Clinics of North America, 25*, 427-441.

Friedman, M. J., Foa, E. B., & Charney, D. S. (2003). Toward evidence-based early interventions for acutely traumatized adults and children. *Biological Psychiatry, 53*, 765-768.

Friedman, M. J., Hamblen, J. L., Foa, E. B., & Charney, D. S. (in press). Commentary: Fighting the psychological war against terrorism. *Psychiatry*.

Galea, S., Ahern, J., Resnick, H. S., Kilpatrick, D. G., Bucuvalas, M. J., Gold, J. et al. (2002). Psychological sequelae of the September 11 terrorist attacks in New York City. *New England Journal of Medicine, 346*, 982-987.

Green, B. L., Friedman, M. J., de Jong, J., Solomon, S., Keane, T., Fairbank, J. A. et al. (2003). *Trauma interventions in war and peace: Prevention, practice, and policy.* Amsterdam: Kluwer Academic/Plenum.

Kessler, R. C., Sonnega, A., Bromet, E., Hughes, M., & Nelson, C. B. (1995). Posttraumatic stress disorder in the national comorbidity survey. *Archives of General Psychiatry, 52*, 1048-1060.

Kinzie, J. D. (2004). Some of the effects of terrorism on refugees. *Journal of Aggression, Maltreatment & Trauma, 9*(1/2/3/4), 411-420.

Malkinson, R., Rubin, S., & Witztum, E. (2004). Terror, trauma, and bereavement: Implications for theory and therapy. *Journal of Aggression, Maltreatment & Trauma, 9*(1/2/3/4), 467-477.

Marsella, A. J. (1998). Toward a "global-community psychology": Meeting the needs of a changing world. *American Psychologist, 53*, 1282-1291.

Nader, K., Pynoos, R., Fairbanks, L., Al-Ajeel, M., & Al-Asfour, A. (1993). A preliminary study of PTSD and grief among the children of Kuwait following the Gulf crisis. *British Journal of Clinical Psychology, 32*, 407-416.

Naturale, A. J. (in press). Mental health outreach strategies: An experiential description of the outreach methodologies utilized in the New York 9/11 disaster response. In E. C. Ritchie, M. J. Friedman, & P. J. Watson (Eds.), *Mental health intervention following disasters and mass violence.* New York: Guilford Press.

Newman, E., Davis, J., & Kennedy, S. (in press). Journalism and the public during catastrophes. In Y. Neria, R. Gross, R. Marshall, & E. Susser (Eds.), *Public mental health in the wake of a terrorist attack.* Cambridge, UK: Cambridge University Press.

Norris, F., Friedman, M., & Watson, P. (2002). 60,000 disaster victims speak, Part II: Summary and implications of the disaster mental health research. *Psychiatry, 65* 240-260.

Norris, F., Friedman, M., Watson, P., Byrne, C., Diaz, E., & Kaniasty, K. (2002). 60,000 disaster victims speak, Part I: An empirical review of the empirical literature, 1981-2001. *Psychiatry, 65*, 207-239.

Norris, F. H., Murphy, A. D., Baker, C. K., & Perilla, J. L. (2003). Severity, timing and duration of reactions to trauma in the population: An example from Mexico. *Biological Psychiatry, 53*, 769-778.

Pfefferbaum, B., Nixon, S., Tivis, R., Doughty, D., Pynoos, R., Gurwitch, R. et al. (2001). Television exposure in children after a terrorist incident. *Psychiatry, 64*, 202-211.

Pfefferbaum, B., Pfefferbaum, R. L., North, C. S., & Neas, B. R. (2002). Commentary: Does television viewing satisfy criteria for exposure in posttraumatic stress disorder? *Psychiatry, 64*, 306-309.

Pivar, I., & Prigerson, H. (2004). Traumatic loss, complicated grief, and terrorism. *Journal of Aggression, Maltreatment & Trauma, 9*(1/2/3/4), 277-288.

Rose, S., & Bisson, J. I. (1998). Brief early psychological interventions following trauma: A systematic review of the literature. *Journal of Traumatic Stress, 11*, 697-710.

Ross, G. (2004). Guide. Media guidelines: From the "trauma vortex" to the "healing vortex." *Journal of Aggression, Maltreatmemt, & Trauma, 9*(1/2/3/4), 391-394.

Schlenger, W. E., Caddell, J. M., Ebert, L., Jordan, B. K., Rouke, K. M., Wilson, D. et al. (2002). Psychological reactions to terrorist attacks: Findings from the national study of American's reactions to September 11. *Journal of the American Medical Association, 288*, 581-588.

Schnurr, P. P., & Green, B. L. (Eds.). (in press). *Trauma and health: Physical health consequences of exposure to extreme stress.* Washington, DC: American Psychological Association.

Schuster, M., Bradley, D., Stein, M., Jaycox, L. H., Collins, R. L., Marshall, G. N. et al. (2001). A national survey of stress reactions after the September 11, 2001, terrorist attacks. *New England Journal of Medicine, 345*, 1507-1512.

Shalev, A. Y., Peri, T., Canetti, L., & Schreiber, S. (1996). Predictors of PTSD in injured trauma survivors. *American Journal of Psychiatry, 153*, 219-225.

Silver, R. C., Holman, E. A., McIntosh, D. N., Poulin, M., & Gil-Rivas, V. (2002). Nationwide longitudinal study of psychological responses to September 11. *Journal of the American Medical Association, 288*, 1235-1244.

Solomon, Z. (1995). The pathogenic effects of war stress: The Israeli experience. In S.E. Hobfall & M.W. de Vries (Eds.), *Extreme stress and communities: Impact and intervention* (pp. 229-246). Amsterdam: Kluwer Academic.

U.S. Department of Health and Human Services. (2002). *Communicating in a crisis: Risk communication guidelines for public officials.* Rockville, MD: Author.

Waizer, J., Dorin, A., Stoller, E., & Laird, R. (2004). Community-based interventions in New York City after 9/11: A provider's perspective. *Journal of Aggression, Maltreatment, & Trauma, 9*(1/2/3/4), 499-511.

Wilson, J. P., Friedman, M. J., & Lindy, J. D. (Eds.). (2001). *Treating psychological trauma and PTSD.* New York: Guilford Press.